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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,051	11/21/2001	Kevin M. Ferguson	7217 US	4466
30078	7590	02/22/2006	EXAMINER	
TEKTRONIX, INC. 14150 S.W. KARL BRAUN DRIVE P.O. BOX 500 (50-LAW) BEAVERTON, OR 97077-0001			TRAN, TRANG U	
			ART UNIT	PAPER NUMBER
			2614	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/992,051

Applicant(s)

FERGUSON, KEVIN M.

Examiner

Trang U. Tran

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. In view of the Appeal Brief Request for Review filed on November 16, 2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipate by Sid-Ahmed (US Patent No. 5,621,470).

Art Unit: 2614

In considering claim 1, Sid-Ahmed discloses all the claimed subject matter, note 1) the claimed means for up-sampling the slower rate video signal to the desired rate is met by the two video memory arrays (VRAM's) 400 and 401 which each pixel is read twice and each horizontal line is read twice and the whole frame is read at twice the frame rate at which image was written (Figs. 2-4, col. 2, line 64 to col. 5, line 19), and 2) the claimed means for adaptively filtering the up-sampled slower rate video signal using a human visual model to produce the smooth interpolated video signal is met by the 3-D low pass digital filter 406 which provide a flicker free image display (Figs. 2-4, col. 2, line 64 to col. 5, line 19).

Claim 3 is rejected for the same reason as discussed in claim 1.

Claim 5 is rejected for the same reason as discussed in claim 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sid-Ahmed (US Patent No. 5,621,470) in view of Zhu et al. (US Patent No. 6,069,664).

In considering claim 2, Sid-Ahmed discloses all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed further comprising means for restoring a direct current level for the smooth interpolated video

signal. Zhu et al teach that the PTI converter 10 and ITP converter 20 provide the restoration of the full vertical resolution corresponding to a progressive video signal from a conventional interlaced video source produced by any progressive film scanner or other similar device where at least one of the horizontal scan lines have been repeated or replaced with a constant value (Fig. 1, col. 8, lines 20-56). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the restoration of the full vertical resolution as taught by Zhu et al into Sid-Ahmed's system in order to preserve the vertical resolution of a progressive film scan system and maintains (NTSC) interlaced video signal output for backward compatibility with existing recording equipment and standard video interfaces in the broadcasting and consumer electronics industry.

Claim 4 is rejected for the same reason as discussed in claim 2.

Claim 6 is rejected for the same reason as discussed in claim 2.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shimamoto et al. (US Patent No. 6,147,712) disclose format conversion circuit and television receiver provided therewith and method of converting video signals.

Correa et al. (US Patent No. 5,517,247) disclose method and apparatus for converting a video input signal of progressive scan form to an interlaced video output signal of doubled field rate and employing progressive scan to progressive scan interpolation for reduction of visual artifacts.


Art Unit: 2614

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 8:00 AM - 5:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TT TT  
February 10, 2006

  
TUAN HO  
PRIMARY EXAMINER  
Acting SPE